




Portable High-Speed Data Acquisition System

DAS1820

Comparison Guide

Manufacturer	B&K Precision		Yokogawa	Hioki
Model	DAS1820		DL350	MR8875
				
Price	5.600 €		-	-
Base Unit				
Module Slots	2		2	4
Memory Storage (for data)	On Base Unit	500 GB SSD (Standard)	SD card slot (card not included)	SD card slot (card not included)
	On Module	-	100 Mpts/module	16 MB/module
Max Number of Channels	Simultaneous	8	8	16
	Multiplexed	16	32	60
Max Sample Rate (across max number of simultaneous channels)	1 MSa/s (to SSD)		1 MSa/s (to module memory) 100 kSa/s (to SD card)	500 kSa/s (to module memory) 100 kSa/s (to SD card)
Display	12" HD touch (1280 x 800)		8.4" resistive touch (800 x 600)	8.4" touch (800 x 600)
Battery Type	Li-Ion (option)		Li-Ion (option)	NiMH (option)
Battery Life	Up to 4 hours		Up to 3 hours	1 hour with back light on
Interfaces / Connectivity	USB3.0 host (x2), LAN (x1)		USB host (x2), USB device (x1), LAN (x1)	USB host (x2), USB device (x1), LAN (x1)
Synchronization	IRIG and GPS (option), PTP (option)		GPS (option)	-
External I/O	Trig in, Trig out, Sampling (output only)		Trig in, Trig out, Sampling	Trig in, Trig out, Sampling, 2 ch for Pulse/Frequency
Digital Inputs	16		16	8
Weight	5 kg (battery & 2 modules)		3.9 kg (battery & 2 modules)	3.47 kg (battery & 2 modules)
Dimensions (W x H x D)	400 x 245 x 120 mm		305 x 217 x 92 mm (excluding protrusion)	298 x 224 x 84 mm (excluding modules and battery)
Base Unit Features				
Recording Capabilities	Parallel acquisition up to 3 files at user-defined sample rates		Single file and selectable sample rate	Single file and selectable sample rate
Output Data File	MDF4(.mf4)		Binary (.wdf); ASCII (.csv) Limited to 2 GB, ≤ 1 Sa/s	Binary (.MEM) for real-time data recording
Virtual / Math Channels	Multi-line scripting with list of operators; single and multi-channel		Single-line function with list of operators; single and two channel	Single-line function with list of operators; single and two channel
Power Analysis	Network Type	DC, 1P1W, 3P3W, 3P4W	1P2W, 1P3W, 3P3W	-
	Frequency	50 Hz, 60 Hz, 400 Hz	50 Hz, 60 Hz	-
Harmonic Analysis	Up to 50th order (10th at 400 Hz)		Up to 40th order	-
FFT Analysis	-		2048 pts	10000 pts
Display Types	Time-domain, numeric meter, Phasor diagram, histogram (harmonics)		Time-domain, X-Y, FFT spectrum, bar chart and list (harmonics)	Time-domain, X-Y, numeric meter, FFT spectrum
Measurement				
Voltage / Current / Resistance	✓		✓	✓
Temperature	Thermocouple, RTDs, Thermistor		Thermocouple	Thermocouple
Frequency / Pulse / PWM	✓		✓	✓
Strain	-		✓	✓
Vibratio / Accelerometer	-		✓	-
Serial Bus Decoding	-		CAN / CAN FD / SENT / LIN	CAN